

## CLAIMS:

1. A high-pressure gas discharge lamp which comprises at least a lamp bulb (2) which hermetically seals off a gas-filled discharge space (21), which lamp bulb (2) has at least one region (3) which does not and/or does not directly serve for the desired light emission of the high-pressure gas discharge lamp, and in which region (3) a thermally  
5 conducting material is provided which has a higher thermal conductivity than the material of the lamp bulb (2).
2. A high-pressure gas discharge lamp as claimed in claim 1, characterized in that the lamp is a UHP lamp.  
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3. A high-pressure gas discharge lamp as claimed in claim 1, characterized in that the thermally conducting material is shaped as a sleeve (5) and is arranged at a distance of less than approximately 500  $\mu\text{m}$  from the lamp bulb (2), more preferably at a distance of less than approximately 200  $\mu\text{m}$  there from.  
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4. A high-pressure gas discharge lamp as claimed in claim 1, characterized in that the mutually corresponding surfaces of the lamp bulb (2) and of the thermally conducting material are substantially identical or similar as regards shape, geometry, and/or expansion.
- 20 5. A high-pressure gas discharge lamp as claimed in claim 1, characterized in that the mutually corresponding surfaces of the lamp bulb (2) and of the thermally conducting material are not or only partly identical or similar as regards shape, geometry, and/or expansion.
- 25 6. A high-pressure gas discharge lamp as claimed in claim 1, characterized in that the thermally conducting material is a foil or a coating which is arranged on the lamp bulb.

7. A high-pressure gas discharge lamp as claimed in claim 1, characterized in that the thermally conducting material comprises aluminum and/or copper.

8. A lighting unit comprising at least one high-pressure gas discharge lamp as  
5 claimed in any one of the claims 1 to 7 as a light source.

9. A lighting unit as claimed in claim 8, with a light source which is a UHP lamp, a main reflector, and a back reflector with an opening which is situated opposite the main reflector and through which light originating from the light source is reflected onto the main  
10 reflector, characterized in that the center of the light source is situated in a focal point of the back reflector, and the back reflector is provided on the lamp bulb.